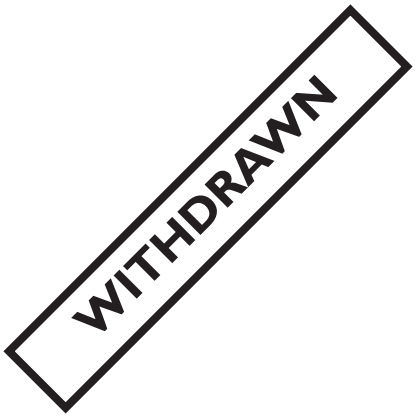

PUK3

CLINICAL IMPACT OF NONCOMPLIANCE AFTER RENAL TRANSPLANTATION

Babarykin D[1], Folkmane I[2], Adamsone I[2], Bicans J[2], Rozental R[2]
[1]University of Latvia, Riga, Latvia; [2]P. Stradins University Hospital, Riga, Latvia

OBJECTIVES: Noncompliance to immunosuppressive medication regimens in renal transplant recipients is an important factor affecting graft survival. The objective of our study was to examine the prevalence of noncompliance, to verify factors associated with this condition as well as to assess the long term impact of noncompliance on graft survival after renal transplantation in Latvia. **METHODS:** Noncompliance with medication and follow-up care was retrospectively evaluated in 311 adult renal transplant recipients (mean age 48.7 ± 14.4 years, 48.2% female, 86.8% primary graft) with at least a 5 year follow-up period, using self-report questionnaires, clinician rating, 20% rate of missing outpatient visits and measurement of the amount of medication that remained unused (on account of pharmacists' report of non-received pills). Thus, our patient compliance data included considerations of natural environment. Long-term graft and patient outcomes in compliant and noncompliant patients were acute rejection rate and chronic allograft dysfunction, graft and patient one, three and five year survival. **RESULTS:** The prevalence of immunosuppressive medication regimen noncompliance in this patient setting was 6.1% and prevalence of appointment noncompliance was 7.1%. Noncompliant patients had more acute rejection episodes ($P < 0.05$) and chronic allograft dysfunction ($P = 0.02$). Risk of all cause graft failure in the noncompliant group was higher—OR 9.3 (95% CI 3.0–28.8; $P < 0.001$) compared to the compliant group. Graft survival at one, three and five years was 88.3%, 81.3% and 75.7%, respectively, for compliant patients and 73.7%, 61.4% and 37.9% respectively for noncompliant patients (Log Rank 5.09; $P = 0.02$). The risk factors associated with noncompliance was younger age ($P < 0.05$) and a immunosuppressive regimen with the highest number of pills ($P = 0.02$. **CONCLUSIONS:** Patients' compliance with medication and follow-up care after renal transplantation shows long-term clinical benefits. Thus, it is of utmost importance to develop intervention strategies to enhance compliance in this population.

PUK4

BUDGET IMPACT ANALYSIS OF MIMPARA AMONG DIALYSIS PATIENTS IN BELGIUM USING A MARKOV SIMULATION MODEL

Roze S[1], Palmer AJ[1], Standaert B[2], Van Kriekinge G[2]
[1]CORE Center for Outcomes Research, Binningen, Switzerland; [2]Amgen n.v, Brussels, Belgium

OBJECTIVE: To demonstrate the impact of Mimpara (MIM), a drug against secondary hyperparathyroidism (sHPT), on the dialysis health care budget in Belgium over time. **METHODS:** A Markov model was developed to compare cost of dialysis patients on standard treatment of care (SOC) with patients on MIM + SOC (add-on model). The model operates in $^1/_2$ year cycles over 5 years starting with a cohort of 5,400 patients (prevalence data). Each year new cases were added to the cohort and a % dropped out due to death or renal transplant. Mortality risk was calculated from 2-year cohort dialysis database (CDB) (n = 13,000)[1]. Patient distributions for sHPT, calcium x phosphor values, and MIM dosages were taken from phase III trials for the MIM arm and from the 2-year CDB for the SOC arm. Patients withdrawing from MIM were treated as SOC patients. According to CDB 35% of the initial cohort may receive MIM (= % of sHPT). Drug uptake was 30% in first cycle with 20% increase per added cycle. MIM drug costs were €3109/year in first cycle and €2617/year per added cycle as only drug responders (85%) remained on study drug. Other treatment costs were taken from a retrospective cost study in Belgium[2] using average daily cost of €214 per dialysis patient, plus €50/day for sHPT. Annual 3% discount rate was applied. **RESULTS:** Cumulative 5-year cost difference of €7.4 million was seen between SOC- and MIM-arm (<0.4% total cost increase with MIM). Running the analysis per year, cost savings early in MIM-treatment were observed due to reduction in treatment costs of morbidities related to shift from sHPT. Slight increase in treatment costs was seen later on due to observed survival benefit with MIM. **CONCLUSION:** Major budget shifts will not be seen with Mimpara in its approved indication.

PUK5

ECONOMIC EVALUATION OF EVEROLIMUS WITH REDUCED-DOSE CYCLOSPORINE IN DE NOVO RENAL TRANSPLANT RECIPIENTS IN HUNGARY

Kósa J[1], Yang X[2], Kiss É[1], Kaló Z[1]
[1]Novartis Hungary, Budapest, Pest, Hungary; [2]Novartis Pharma AG, Basel, Switzerland

OBJECTIVE: The objective of this study was to assess the economic impact of everolimus with reduced-dose CsA in de novo renal transplant recipients in the Hungarian health care setting. **METHODS:** Analyses of the trial RADB201 found that total direct medical costs (costs without everolimus, CsA and MMF) are mostly dependent on key clinical events, i.e., number of days on dialysis (hemo- and peritoneal), inpatient length of stay (LOS) due to adverse events (AE) or infection (INF), and episodes of biopsy proven acute rejection (BPAR). A multivariate regression model was applied on the RADB-201 database to predict total direct medical costs based on these clinical events. The obtained coefficients, adjusted for patient characteristics, were applied to the clinical data of the RADA-2306 trial, hence predicting the economic consequences of the reduced CsA dose . We applied Hungarian unit costs to the entire clinical database. The time horizon of the analysis was one year. **RESULTS:** The model predicted that the incremental cost for one day on hemodialysis and peritoneal dialysis was HF 134,617 and HF 50,149, one day of hospitalization due to AE and INF was HF 41,685 and HF 45,231 and the one BPAR event reached HF 523,907, all these